Attorney's Docket No.: 00232-194001

Applicant: Michael A. Fischer Serial No.: 09/292,152

Filed : April 15, 1999

Page: 2

maximum storage height of 30 feet in a storage area having a maximum ceiling height of 35 feet, with no open containers and no solid shelves, said sprinkler having a K-factor of about 25 and a minimum design flowing pressure of about 20 pounds per square inch at the most remote sprinkler.--

--23. (New) An early suppression fast response pendent-type fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 35 feet in a storage area having a maximum ceiling height of 40 feet, with no open containers and no solid shelves, said sprinkler having a K-factor of about 25 and a minimum design flowing pressure of about 25 pounds per square inch at the most remote sprinkler.--

--24. (New) An early suppression fast response pendent-type fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 40 feet in a storage area having a maximum ceiling height of 45 feet, with no open containers and no solid shelves, said sprinkler having a K-factor of about 25 and a minimum design flowing pressure of about 40 pounds per square inch at the most remote sprinkler.--

Please amend claim 2, as follows

--2. (Amended) The early suppression fast response pendent-type fire protection sprinkler of claim 1, 22, 23 or 24, further comprising:

a sprinkler body defining an orifice and an outlet for delivering a flow of fluid from a source, and

a deflector mounted with a first surface opposed to flow of fluid from the outlet, said deflector defining at least two reentrant slots disposed in opposition about a deflector axis, said reentrant slots extending from said first surface through said deflector, and said reentrant slots extending from slot openings at an outer peripheral edge of said deflector inwardly from said peripheral edge toward said deflector axis.--

A2

Applicant: Michael A. Fischer Attorney's Docket No.: 00232-194001

Serial No.: 09/292,152 Filed: April 15, 1999

Page: 3

Please amend claim 7, as follows:

--7. (Amended) The early suppression fast response pendent-type fire protection sprinkler of claim 1, 22, 23 or 24, further comprising a deflector, and wherein said sprinkler is suited for installation with said deflector disposed up to 18 inches below a ceiling.--

Please amend claim 8, as follows:

--8. (Amended) The early suppression fast response pendent-type fire protection sprinkler of claim [1] 2, wherein said deflector has a thickness measured from said first surface in the direction of fluid flow equal to or greater than about 0.06 inch.--

Please amend claim 21, as follows:

--21. (Amended) An early suppression fast response pendent-type fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage, having a maximum storage height of 25 feet in a storage area having a maximum ceiling height of 30 feet, with no open containers and no solid shelves, said sprinkler having a K-factor of about 25 or more and a minimum design flowing pressure of about 15 pounds per square inch at the most remote sprinkler.--

Please add the following new claims:

--25. (New) An early suppression fast response pendent-type fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 30 feet in a storage area having a maximum ceiling height of 35 feet, with no open containers and no solid shelves, said sprinkler having a K-factor of about 25 or more and a minimum design flowing pressure of about 20 pounds per square inch at the most remote sprinkler.--

--26. (New) An early suppression fast response pendent-type fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 35 feet in a storage area having a maximum ceiling height of 40 feet, with no open containers and no solid shelves, said sprinkler having a K-factor of about 25 or

Attorney's Docket No.: 00232-194001

Applicant: Michael A. Fischer Serial No.: 09/292,152 : April 15, 1999 Filed

Page

more and a minimum design flowing pressure of about 25 pounds per square inch at the most remote sprinkler.--

--27. (New) An early suppression fast response pendent-type fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 40 feet in a storage area having a maximum ceiling height of 45 feet, with no open containers and no solid shelves, said sprinkler having a K-factor of about 25 or more and a minimum design flowing pressure of about 40 pounds per square inch at the most remote sprinkler.--

--28. (New) An early suppression fast response pendent-type fire protection sprinkler suitable for use in accordance with one of more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 25 feet in a storage area having a maximum ceiling height of 30 feet, with no open containers and no solid shelves, said sprinkler having a minimum design flowing pressure of about 15 pounds per square inch at the most remote sprinkler.--

--29. (New) An early suppression fast response pendent-type fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 30 feet in a storage area having a maximum ceiling height of 35 feet, with no open containers and no solid shelves, said sprinkler having a minimum design flowing pressure of about 20 pounds per square inch at the most remote sprinkler.--

--30. (New) An early suppression fast response pendent-type fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 35 feet in a storage area having a maximum ceiling height of 40 feet, with no open containers and no solid shelves, said sprinkler having a minimum design flowing pressure of about 25 pounds per square inch at the most remote sprinkler.--

--31. (New) An early suppression fast response pendent-type fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a



Applicant: Michael A. Fischer

Serial No.: 09/292,152 Filed: April 15, 1999

Page : 5

maximum storage height of 40 feet in a storage area having a maximum ceiling height of 45 feet, with no open containers and no solid shelves, said sprinkler having a minimum design flowing pressure of about 40 pounds per square inch at the most remote sprinkler.--

Attorney's Docket No.: 00232-194001

--32. (New) An early suppression fast response fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 25 feet in a storage area having a maximum ceiling height of 30 feet, with no open containers and no solid shelves, said sprinkler having a minimum design flowing pressure of about 15 pounds per square inch at the most remote sprinkler.--

--33. (New) An early suppression fast response fire protection sprinkler suitable for use in accordance with one or more of NFPA 13 NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 30 feet in a storage area having a maximum ceiling height of 35 feet, with no open containers and no solid shelves, said sprinkler having a minimum design flowing pressure of about 20 pounds per square inch at the most remote sprinkler.--

--34. (New) An early suppression fast response fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 35 feet in a storage area having a maximum ceiling height of 40 feet, with no open containers and no solid shelves, said sprinkler having a minimum design flowing pressure of about 25 pounds per square inch at the most remote sprinkler.--

--35. (New) An early suppression fast response fire protection sprinkler suitable for use in accordance with one or more of NFPA 13, NFPA 231 and NFPA 231C, to protect single row rack storage, double row rack storage and multiple row rack storage having a maximum storage height of 40 feet in a storage area having a maximum ceiling height of 45 feet, with no open containers and no solid shelves, said sprinkler having a minimum design flowing pressure of about 40 pounds per square inch at the most remote sprinkler.--

